Name:

at1113exam: Expand, factor, and solve quadratics (v301)

1. Expand the following expression into standard form.

$$(7x + 9)(7x - 9)$$

2. Expand the following expression into standard form.

$$(5x - 3)(6x + 7)$$

3. Expand the following expression into standard form.

$$(3x + 7)^2$$

4. Solve the equation.

$$(5x + 2)(8x - 7) \;=\; 0$$

5. Solve the equation with factoring by grouping.

$$10x^2 + 8x + 15x + 12 \;=\; 0$$

6. Solve the equation.

$$6x^2 - 26x + 5 \;=\; 3x^2 + 2x - 4$$

7. Factor the expression.

$$36x^2 - 25$$

8. Factor the expression.

$$x^2 - 13x + 42$$